

R E M A R K S

Careful consideration has been given to the Official Action of May 3, 2004 and reconsideration of the application as amended is respectfully requested.

Priority

In order to complete the priority claim under 35 U.S.C. § 119 (to overcome the Locke reference cited in this Application) and pursuant to MPEP 201.15 there is submitted herewith a certified translation of the priority application. Thereby, the earliest priority of this application of July 18, 2002 precedes the effective date of the cited Locke published application filed January 24, 2001 and thereby this reference is no longer applicable as a valid citation under 35 U.S.C. § 102 or 35 U.S.C. § 103. This being the case, the rejection which has been made based on the citation of the Locke published application no longer applies.

Withdrawal of Final Rejection

It is requested that the Examiner withdraw the finality of the rejection of May 3, 2004 as this action was the first action on the merits and it was the first time that applicants were apprized of the cited art. Accordingly, this is the first opportunity that applicants have had to respond to an art rejection and should the Examiner find the claims not to be allowable as amended herein (as will be

discussed later), it is at least requested that the amendment be entered and considered on its merits.

Rejection under 35 U.S.C. § 103

The Examiner has rejected claims 9-10, 13-20 and 23-28 under 35 U.S.C. § 103 as being unpatentable over Padilla in view of Locke. Claims 11, 12 and 21-22 have been indicated as containing allowable subject matter.

As indicated above, the Locke published application is not available to the Examiner as a reference and therefore the rejection under 35 U.S.C. § 103 must fall.

Since this is the first opportunity that applicants have had to consider cited art in this application, claim 9 has been amended to recite the essential features by which the invention distinguishes over the cited art. Claim 16 has been cancelled and claim 29 has been added.

In the absence of Locke as a reference, the rejection of the claims must fall as explained above.

Fundamentally, the invention is characterized in that for each approximation function a solution is determinable. On this basis, a global minimum is calculated.

Padilla discloses a cost function but the solution is for a completely different problem and only a time-invariant solution is solved. One skilled in the art would not consider Padilla as a solution for the entirely different problem. The cost function must not necessarily have unique (distinct) minima in Padilla. As there is no guarantee of the existence of a minimum, the method of Padilla is not applicable of suitable for a time-variant application as in the present invention. Additionally, Padilla does not disclose a decomposition of the cost function.

More specifically, the known art solves structural problems whose solution is time-invariant. In contrast, the invention seeks to determine an unknown state for every iteration state. The use of a cost function to solve these problems is not disclosed in the state of the art. Although Padilla uses a cost function, this is used to find an updated estimation of the structural parameters calculated by the analytical model which, of course, is time-invariant. The invention does not use an analytical model on which a cost function is applied. Instead, the invention determines in every iteration step a cost function which is time-invariant. A prior step in which an analytical model would have to be used in order to improve the estimation by a filter technique, a cost function is not provided. It would not be applicable because the model of Padilla is time-invariant. This would be a simulation.

Claim 9 calls for establishing a selection of approximation regions (30)

(and an approximation function of the cost function in each region) whereas in Padilla there is no disclosure of an approximation function of the cost function. Instead, the cost function is used to find an optimal solution for the estimation of the structural parameters.

Claim 9 also goes on to require that for each approximation region at least one approximation function of the cost function is established in which a sum of the approximation function covers the entire relevant state region.

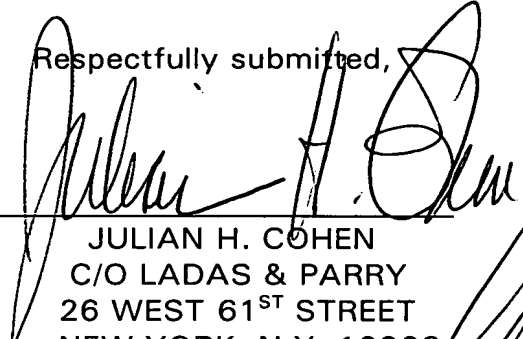
Padilla discloses no decomposition of the cost function whatsoever.

Parenthetically it is also noted that Locke lacks this decomposition of the cost function as well. Additional, claim 9 calls for determining a global minimum (50) by comparing the local minima wherein the global minimum represents the state variable (X) of the system (1). This is not disclosed or suggested in Padilla which does not solve the problem of finding a global minimum which is a difficulty in time-variant systems. Also, the problem of the guarantee of the existence of a minimum is not solved in Padilla. The same commentary parenthetically applies to Locke.

It is therefore concluded that Padilla is not applicable independent claims 9 and 19 and these claims are therefore deemed to be allowable along with their dependent claims.

Early and favorable reconsideration of the application is earnestly
solicited.

Respectfully submitted,


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